

ABSTRACT

A simplified methodology for accomplishing traffic management in a packet based network is achieved by allowing allocation of bandwidth based on a count of the number of endpoint connections associated with a specific service for a corresponding network device. A network device (e.g., IP router) can be configured to count the number of TCP/IP and UDP/IP connections and bandwidth usage per interface. The counting can be done by identifying the IP Addresses, Type of Service (TOS), and TCP/UDP and/or UDP/IP socket number range in the IP Header of a packet and then querying a specific communication type. When reaching the maximum allowed connections or bandwidth for a specific service, the network device (e.g., IP router) stops forwarding any new calls by means of dropping packets of new calls and informing the given endpoints to disconnect the new calls. In one exemplary embodiment of the invention, a procedure for managing traffic flowing through individual routers of a packet network includes the steps of reserving a given amount of bandwidth on interfaces of the individual routers for specific types of communications traffic, periodically querying endpoint connections based on data from a corresponding router connection table, receiving responses from the periodic querying to determine a current connection status and bandwidth allocation of said endpoints and calculating current bandwidth allocation for a specific type communications service on an interface handled by the router. The router admits additional communications traffic for a specific type of communications service if bandwidth is available.